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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,154	10/22/2001	Stuart D. Asakawa	10008111-1	4679

22879 7590 04/26/2004

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FORT COLLINS, CO 80527-2400

EXAMINER

MOUTTET, BLAISE L

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/016,154	Applicant(s) <b>AK</b> ASAKAWA, STUART D.	
	Examiner Blaise L Mouttet	Art Unit 2853	

**-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-50 is/are pending in the application.
- 4a) Of the above claim(s) 22-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-50 is/are allowed.
- 6) ☒ Claim(s) 1, 3-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 17 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 22-40 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the paper filed March 4, 2003.

### ***Double Patenting***

2. Claims 17 and 21 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 41 and 46. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1, 4-7, 9-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. US 5,085,698 in view of Okuda et al. US 5,779,777.

Ma et al. discloses, regarding claim 1, a specialty ink comprising:

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an ink vehicle (water, alcohol or a mixture thereof as discussed in column 8, line 51 – column 9, line 23); and

particulates (pigments) dispersed within the ink vehicle (column 7, line 10 – column 8, line 48) being ink jettable and configured for reliable ink jetting from an ink jet pen having a bore size in a range overlapping with 20-200 microns in diameter without clogging the ink jet pen (column 7, lines 15-17).

Regarding claims 4-6, 19 and 20 the various claimed ranges overlap with the ranges disclosed in column 7, lines 22-26 of Ma et al.

Regarding claim 9, a range overlapping 1-10% concentration by weight is taught for the particulates (column 9, lines 55-60)

Regarding claims 10-12, the pigment particles act as a colorant (column 7, lines 12-13).

Regarding claims 13 and 14, a thermal ink jet pen is used with the ink (column 9, lines 55-60).

Regarding claim 15, paper is taught as a substrate that accepts ink jet ink (column 1, lines 12-19).

Regarding claim 18, the ratio of the range of particle sizes (0.005-15 microns) to nozzle diameters (10-50 microns) overlap the range 1:8 –1:300 specified.

Ma et al. fails to disclose, regarding claims 1, 13 and 16, that a multi-colored reflected light is emittable in the presence of a light source when the ink is dried and that the particulates have directionally dependent light reflective properties.

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Ma et al. fails to disclose, regarding claim 7, the range of 20-100 microns for the particulates length.

Okuda et al. discloses optimized ranges for pigment-based ink utilizing pearlescent directionally dependent light reflective and multicolor reflective particulates (column 2, lines 36-57) that overlap the ranges of claims 4-7, 9, 19 and 20.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the pigment pearlescent particulates as taught by Okuda et al. as the pigment particulates in the ink of Ma et al.

The motivation for doing so would have been that these particles allow for glossy printed images with quick drying as taught by the abstract of Okuda et al.

4. Claim 1, 3-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. US 5,085,698 in view of Bujard et al. US 5,855,660.

Ma et al. discloses, regarding claim 1, a specialty ink comprising:

an ink vehicle (water, alcohol or a mixture thereof as discussed in column 8, line 51 – column 9, line 23); and

particulates (pigments) dispersed within the ink vehicle (column 7, line 10 – column 8, line 48) being ink jettable and configured for reliable ink jetting from an ink jet pen having a bore size in a range overlapping with 20-200 microns in diameter without clogging the ink jet pen (column 7, lines 15-17).

Regarding claims 4-8, 19 and 20 the various claimed ranges overlap with the ranges disclosed in column 7, lines 22-26 of Ma et al.

Regarding claim 9, a range overlapping 1-10% concentration by weight is taught for the particulates (column 9, lines 55-60)

Regarding claims 10-12, the pigment particles act as a colorant (column 7, lines 12-13).

Regarding claims 13 and 14, a thermal ink jet pen is used with the ink (column 9, lines 55-60).

Regarding claim 15, paper is taught as a substrate that accepts ink jet ink (column 1, lines 12-19).

Regarding claim 18, the ratio of the range of particle sizes (0.005-15 microns) to nozzle diameters (10-50 microns) overlap the range 1:8 –1:300 specified.

Ma et al. fails to disclose, regarding claims 1, 13 and 16, that a multi-colored reflected light is emittable in the presence of a light source when the ink is dried and that the particulates have directionally dependent light reflective properties.

Ma et al. fails to disclose, regarding claim 3, the particulates shape.

Bujard et al. discloses multi-colored pigment ink particulates having directionally dependent light reflective properties wherein the particulates are plate-like shaped and fall under the size ranges of claims 4-8 (column 6, lines 26-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the pigment mica plate-like particulates as taught by Bujard et al. as the pigment particulates in the ink of Ma et al.

The motivation for doing so would have been to print with desirable color effects as suggested by the title of Bujard et al.

***Allowable Subject Matter***

5. Claims 41-50 are allowable.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of the allowability of claims 41-45 is the inclusion therein, in combination as currently claimed, of the limitation of a second coating of the specialty ink-jet ink that increases the intensity of the directionally dependent light reflective properties. This limitation is found in claims 41-45 and is neither disclosed nor taught by the prior art of record, alone or in combination.

The primary reason for the indication of the allowability of claim 46-50 is the inclusion therein, in combination as currently claimed, of the further limitation of the speciality ink-jet ink pen riding along with the standard inkjet pen and wherein the speciality inkjet ink pen is activated when the substrate is to be marked as an original. This limitation is found in claims 46-50 and is neither disclosed nor taught by the prior art of record, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

6. Applicant's arguments filed March 8, 2004 have been fully considered but are not persuasive.

The applicant has argued that there is insufficient motivation for combining the references as proposed by the examiner. The examiner disagrees.

Initially the examiner notes that the base reference of Ma et al. clearly discloses the use of pigment particles in ink jet inks and that these pigments are recognized to be found in non-inkjet compositions such as paint (column 1, lines 41-61). Further Ma et al. teaches that a wide variety of pigments may be selected to form the composition (column 7, lines 10-12). The specific types of pigments disclosed by Okuda et al. and Bujard et al. are taught to provide desirable printed effects when placed on a print medium as noted in the applied rejection. Since Ma et al. admits to looking to non-inkjet pigments such as found in paint and Okuda et al. and Bujard et al. teach advantageous printing effects produced by the disclosed pigments it would have been obvious to a person of ordinary skill in the art to make the combination as proposed by the examiner.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within



TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

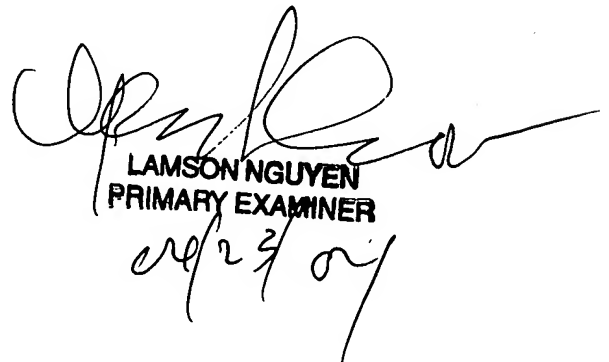
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet April 21, 2004

BM 4/21/2004

  
LAMSON NGUYEN  
PRIMARY EXAMINER  
4/23/04